

Practical no 4

```
1] orphan.c : #include <stdio.h>
#include <unistd.h>

int main() {
    int pid = fork();

    if (pid > 0) {
        printf("Parent Process ID: %d\n", getpid());
    } else {
        sleep(5);
        printf("Child Process ID: %d\n", getpid());
        printf("Parent Process ID after orphan: %d\n", getppid());
    }
    return 0;
}

2] zombie.c : #include <stdio.h>
#include <unistd.h>

int main() {
    int pid = fork();

    if (pid > 0) {
        sleep(10);    // Parent sleeping
        printf("Parent Process Running\n");
    } else {
        printf("Child Process Terminated\n");
    }
    return 0;
}

3] fork.c : #include <stdio.h>
#include <unistd.h>

int main() {
    int pid = fork();

    if (pid == 0) {
        printf("Child Process\n");
        printf("PID: %d\n", getpid());
        printf("PPID: %d\n", getppid());
    } else {
        printf("Parent Process\n");
        printf("PID: %d\n", getpid());
    }
    return 0;
}
```